

REMARKS

By the present Amendment, claims 1-10 are cancelled and claims 11-21 are added. This leaves claims 11-21 pending in the application, with claim 11 being independent.

Substitute Specification

The specification is revised to eliminate grammatical and idiomatic errors in the originally presented specification. The number and nature of the changes made in the specification would render it difficult to consider the case and to arrange the papers for printing or copying. Thus, the substitute specification will facilitate processing of the application. The substitute specification includes no "new matter". Pursuant to M.P.E.P. § 608.01(q), voluntarily filed, substitute specifications under these circumstances should normally be accepted. A marked-up copy of the original specification is appended hereto.

Claim Objections and Rejection Under 35 U.S.C. § 112, Second Paragraph

Original claims 1, 2, 4, 5, 8 and 10 stand objected to as being informal or rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. By the present Amendment, the originally filed claims have been rewritten to avoid the language alleged to be informal or indefinite in the Office Action. All language of the presently pending claims is now believed to be clear and definite.

Thus, the pending claims are formal, definite and comply with 35 U.S.C. § 112.

Rejection Under 35 U.S.C. §102 & § 103

Claim 11 covers a lubricating device comprising first and second gear stages 16 and 18 a lubricant circuit 20 and an immersion bath 28. The gear stages are mounted next to one another

and are dynamically connected to one another. The lubricant circuit has at least one filter 26, a lubricant supply 38 for providing lubricant through the first gear stage, and a lubricant outlet 40 for removing lubricant from the second gear stage. Circulating lubricant is drawn from the lubricant outlet to the filter for cleaning, and is then conveyed to the lubricant supply. The immersion bath receives individually and at least partially each of the two gear stages for the gear stages to pass through the immersion bath for splash lubrication of the gear stages. The immersion bath has a lubricant reserve and a subdivision 30 separating the immersion bath into first and second bath areas 32 and 34 for the first and second gear stages, respectively. The subdivision has a configuration and the lubricant reserve has an amount such that the lubricant overflows the subdivision to be conveyed from the first bath area to the second bath area. The first bath area has the lubricant supply, while the second bath area has the lubricant outlet.

By forming the lubricating device in this manner, a good flow of the lubricant is provided throughout the entire device, avoiding stagnation areas of lubricant. The lubricant is distributed onto the first gear stage and collects in the first bath. Fluid overflowing the subdivision 30 enters the second bath for lubricating the second gear stage. The lubricant in the second bath is then withdrawn from the immersion bath via outlet 40 and is conveyed by pump 22 through the filter and then back to the lubricant supply.

Original claim 1 stands rejected under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 5,279,391 to Ward. The Ward patent is cited for disclosing a transmission with multiple engaged gear stages and a lubricant circuit with a filter unit 48. The lubricant is allegedly drawn via an inlet 46 of pump 44 near a gear stage 26, cleaned by the filter unit and supplied to another gear stage 34 via nozzle 51.

Original claims 2, 3 and 5-7 stand rejected under 35 U.S.C. §103 as being unpatentable over the Ward patent in view of U.S. Patent No. 4,420,990 to Hauser. For these claims, the Ward patent is alleged to allow lubrication to flow from one gear stage to the next and down into bath area 42 and the lubrication circuit inlet. The Hauser patent is cited for a filler inside a transmission casing 11 to separate gears A, B, C into separate immersion baths. In support of the rejection, it is alleged that it would be obvious to use the Hauser filler in the Ward transmission. Relative to claims 5-7, motor pump 44 and nozzle 51 are alleged to be mounted diagonally opposite one another in the upper and lower areas of the transmission housing with the filter unit being mounted between the pump and gear housing 12.

Original claims 8 and 9 stand rejected under 35 U.S.C. §103 as being unpatentable over the Ward and Hauser patents in view of U.S. Patent No. 7,279,091 to Sann. The Sann patent is cited relative to the use of a filter unit having finer coarse filters and a bypass. In support of the injection, it is alleged that it would be obvious to use the Sann filter unit in the Ward transmission.

Original claims 1 and 4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,582,998 to Leeson in view of the Ward patent. The Leeson patent is cited for a mechanism, including a planet gear 6 and a spur gear 24 dynamically connected to each other. The Ward patent is cited for a lubrication circuit having a filter unit 48, an inlet 46 of a pump 44 and a lubrication supply nozzle 51 adjacent a gear stage 34. In support of the rejection, it is alleged that it would be obvious to use the Ward lubrication circuit and the Leeson mechanism.

Claim 11 is patentably distinguishable over the cited patents considered individually or in any obvious combination thereof by the combination of the separate immersion bath areas for the separate gear stages in combination with the specific lubricant flow, including the overflow over the subdivision 30. None of the other cited patents discloses or rendered such structure obvious.

The Ward patent discloses a dry sump mechanical transmission where only the gear 56 is immersed within lubricant 42 within lubricant reservoir 40. None of the other gears 22, 26, 28, 30, 32 and 34 are disclosed as being immersed. Thus, the Ward patent does not teach multiple gear stages immersed in separate immersion bath areas. Particularly, the Ward patent only discloses a single bath area provided by reservoir 40.

Such deficiencies in the Ward patent are not satisfied by any of the other cited patents, particularly the Hauser patent. The Hauser patent discloses a transmission having a filler 18 to occupy most of the space of the transmission between the gears A-G in housing 11. The Hauser patent fails to disclose any flow of the lubricant outside of the housing, or even between the various pre-elected locations 27. Specifically, there is no disclosure of overflow between the walls separating the locations 27. Even if it is assumed to be obvious to add the teaching of the Hauser patent to the Ward reservoir, such combination would only provide a filler 18 within reservoir 42 about gear 56. The combination would not teach providing first and second baths for first and second gear stages, respectively, separated by a subdivision 30. Additionally, it would anticipate or render obvious the subdivision configuration and lubricant amount such that the claimed overflow would occur.

Thus, the subject matter of claim 11 is not anticipated or rendered by the Ward patent, the Hauser patent, or any obvious combination thereof.

The cited Sann patent is merely cited in connection with the filter features, and thus, does not supply the deficiencies in the Ward and Hauser patents discussed above.

The Leeson patent is cited for a transmission having a planet gear 6 and a spur gear 24 dynamically connected to each other. Even if the Ward lubrication circuit is added thereto, such proposed combination would not provide the claimed separate immersion bath areas, the claimed subdivision with overflow, nor the lubricant circuit discussed above.

Accordingly, claim 11 is patentably distinguishable over the cited patents.

Claims 12-21 being dependent upon claim 11, are also allowable for the above reasons. Moreover, these dependent claims recite additional features further distinguishing them over the cited patents.

Claim 12 is further distinguished by the gear stages being parts of a wind power station. None of the other cited patents appear to relate to a wind power station.

Claim 13 is further distinguished by the first gear stage comprising a planet gear while the second gear stage comprises a spur gear, within the overall claimed combination.

Claim 14 is further distinguished by the suction device and the injection device being located diagonally opposite each another. Such diagonal orientation is not provided in the Ward patent, particularly within the overall claimed combination.

Claim 15 is further distinguished by the motor pump unit, particularly within the overall claimed combination.

Claim 16 is further distinguished by the filter mounting within the overall claimed combination.

Claims 17-21 are further distinguished by the particular filter constructions used in combination with the claimed lubricating device. Although such filter structure is disclosed in the cited Sann patent, it does not disclose the use of that filter within the particularly claimed lubricating device.

In view of the foregoing, claims 11-21 are allowable. Prompt and favorable action is solicited.

Respectfully submitted,



Mark S. Bicks
Reg. No. 28,770

Roylance, Abrams, Berdo & Goodman, LLP
1300 19th Street, NW, Suite 600
Washington, DC 20036
(202) 659-9076

Dated: February 27, 2008

In the Drawings

Replace the originally filed drawing with the attached replacement sheet adding the legend "FIG. 1."